

Claims

What is claimed is:

1. A method for processing text transcripts of speech after imperfect speech
5 recognition, the method comprising the steps of:
converting a speech document to text;
processing the text to determine salient terms; and
displaying the text by emphasizing the salient terms and minimizing
non-salient terms.
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2. The method of claim 1, wherein the step of processing the text to
determine salient terms further comprises the steps of:
increasing sentence and paragraph structure in the text;
removing non-word utterances from the text;
15 determining high selectivity terms in the text; and
selecting terms from the high selectivity terms that are above a
predetermined selectivity.
3. The method of claim 1, further comprising the steps of:
20 selecting a salient term;
determining a time of the salient term relative to a beginning time of the
speech document; and
playing the speech document from the time of the salient term.
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4. The method of claim 1, further comprising the step of creating the speech document by recording a conversation, and wherein the step of converting comprises performing speech recognition on the speech document, wherein any speakers of the speech have not trained the speech recognition system with their own speech.

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5. A method for processing text transcripts of speech after imperfect speech recognition, the method comprising the steps of:

converting a speech document to at least one text transcript;

10 increasing sentence and paragraph structure in the at least one text transcript;

removing non-word utterances from the at least one text transcript;

determining salient terms in the at least one text transcript; and

displaying text of the at least one text transcript, the step of displaying performed to emphasize display of the salient terms relative to non-salient terms.

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6. The method of claim 5, wherein the steps of increasing and removing are performed by accessing the at least one transcript and creating processed text comprising the at least one transcript with the increased sentence and paragraph structure and with fewer non-word utterances.

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7. The method of claim 5, wherein the step of displaying text in the at least one text transcript further comprises the step of making font size of the non-salient terms at least 10 points smaller than font size of the salient terms.

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8. The method of claim 5, wherein the step of displaying text in the at least one text transcript further comprises the step of displaying the non-salient terms with non-text symbols.

5 9. The method of claim 5, wherein the step of displaying text in the at least one text transcript further comprises the step of displaying the non-salient terms wherein they are unreadable.

10. The method of claim 5, wherein the step of determining salient terms in
10 the at least one text transcript further comprises the steps of:
determining high selectivity terms in the at least one text transcript; and
selecting terms from the high selectivity terms that are above a
predetermined selectivity.

15 11. The method of claim 10, wherein the step of determining salient terms in the at least one text transcript further comprises the step of:
removing terms whose category is uncertain from the high selectivity
terms.

20 12. The method of claim 10, wherein the step of determining high selectivity terms further comprises the step of determining selectivity of terms in the at least one text transcript and determining terms having a predetermined selectivity, and wherein the step of selecting terms further comprises the step of selecting terms having the predetermined selectivity that are above a predetermined threshold.

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13. The method of claim 5, wherein the step of determining salient terms in the at least one text transcript further comprises the steps of:

determining high selectivity terms in the at least one text transcript;

determining how many high selectivity terms there are;

5 determining how many multiword and high selectivity terms there are that are above a first predetermined selectivity;

when there are ten or more high selectivity and multiword terms that have confidences greater than a first predetermined selectivity, displaying the ten or more high selectivity and multiword terms; and

10 when there are less than ten high selectivity and multiword terms that are above a first predetermined selectivity:

determining how many single word and high selectivity terms there are;

15 determining if there are ten or more single word and multiword terms that are high selectivity terms that have selectivities greater than a first predetermined selectivity;

when there are ten or more single word and multiword terms that are high selectivity terms that have selectivity greater than a first predetermined selectivity, displaying all of the ten or more single word and multiword terms; and

20 when there are not ten or more single word and multiword terms that are high selectivity terms that have confidences greater than a first predetermined selectivity, displaying all single word and multiword terms that are high selectivity terms and that have confidences greater than
25 a second predetermined selectivity.

14. The method of claim 5, wherein the step of displaying text further comprises the steps of:

determining a position of a cursor when a click occurs;

5 determining if the position is within a predetermined distance from one of a plurality of salient terms that are being displayed;

when the position is within the predetermined distance from one of the salient terms, performing the following steps:

determining which of the salient terms is near the position;

determining a time of the salient term; and

10 playing the speech document, beginning at the time.

15. A system for processing text transcripts of speech after imperfect speech recognition, the system comprising:

a memory that stores computer-readable code; and

15 a processor operatively coupled to the memory, the processor configured to implement the computer-readable code, the computer-readable code configured to:

convert a speech document to text;

process the text to determine salient terms; and

20 display the text by emphasizing the salient terms and minimizing non-salient terms.

16. The system of claim 15, wherein the computer-readable code is further configured, when processing the text to determine salient terms, to:

increase sentence and paragraph structure in the text;

25 remove non-word utterances from the text;

determine high selectivity terms in the text; and

select terms from the high selectivity terms that are above a predetermined selectivity.

17. The system of claim 15, wherein the computer-readable code is further
5 configured to:

select a salient term;

determine a time of the salient term relative to a beginning time of the speech document; and

play the speech document from the time of the salient term.

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18. The system of claim 15, wherein the computer-readable code is further configured to create the speech document by recording a conversation, and wherein the computer-readable code is further configured, when converting a speech document to text, to perform speech recognition on the speech document, wherein any speakers of the
15 speech have not trained the speech recognition system with their own speech.

19. A system for processing text transcripts of speech after imperfect speech recognition, the system comprising:

a memory that stores computer-readable code; and

20 a processor operatively coupled to the memory, the processor configured to implement the computer-readable code, the computer-readable code configured to:

convert a speech document to at least one text transcript;

increase sentence and paragraph structure in the at least one text transcript;

remove non-word utterances from the at least one text transcript;

25 determine salient terms in the at least one text transcript; and

display text of the at least one text transcript, the step of displaying performed to emphasize display of the salient terms relative to non-salient terms.

20. The system of claim 19, wherein computer-readable code is further configured, when determining salient terms in the at least one text transcript, to:

determine high selectivity terms in the at least one text transcript; and

5 select terms from the high selectivity terms that are above a predetermined selectivity.

21. The system of claim 20, wherein computer-readable code is further configured, when determining salient terms in the at least one text transcript, to:

remove terms whose category is uncertain from the high selectivity terms.

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22. The system of claim 20, wherein computer-readable code is further configured, when determining high selectivity terms, to determine selectivity of terms in the at least one text transcript and determine terms having a predetermined selectivity, and wherein computer-readable code is further configured, when selecting terms, to select
15 terms having the predetermined selectivity that are above a predetermined threshold.

23. The system of claim 19, wherein computer-readable code is further configured, when displaying text, to:

determine a position of a cursor when a click occurs;

20 determine if the position is within a predetermined distance from one of a plurality of salient terms that are being displayed; and

when the position is within the predetermined distance from one of the salient terms, perform the following steps:

determine which of the salient terms is near the position;

25 determine a time of the salient term; and

play the speech document, beginning at the time.

24. An article of manufacture for processing text transcripts of speech after imperfect speech recognition, the article of manufacture comprising:

a step to convert a speech document to text;

a step to process the text to determine salient terms; and

5 a step to display the text by emphasizing the salient terms and minimizing non-salient terms.

25. The article of manufacture of claim 24, wherein the computer-readable code means further comprises, when processing the text to determine salient terms:

10 a step to increase sentence and paragraph structure in the text;

a step to remove non-word utterances from the text;

a step to determine high selectivity terms in the text; and

a step to select terms from the high selectivity terms that are above a predetermined selectivity.

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26. The article of manufacture of claim 24, wherein the computer-readable code means further comprises:

a step to select a salient term;

a step to determine a time of the salient term relative to a beginning time

20 of the speech document; and

a step to play the speech document from the time of the salient term.

27. The article of manufacture of claim 24, wherein the computer-readable code is further configured to create the speech document by recording a conversation, and
25 wherein the computer-readable code is further configured, when converting a speech document to text, to perform speech recognition on the speech document, wherein any

speakers of the speech have not trained the speech recognition article of manufacture with their own speech.

28. An article of manufacture for processing text transcripts of speech after
5 imperfect speech recognition, the article of manufacture comprising:

a step to convert a speech document to at least one text transcript;

a step to increase sentence and paragraph structure in the at least one text
transcript;

a step to remove non-word utterances from the at least one text transcript;

10 a step to determine salient terms in the at least one text transcript; and

a step to display text of the at least one text transcript, the step of
displaying performed to emphasize display of the salient terms relative to non-salient
terms.

15 29. The article of manufacture of claim 28, wherein computer-readable code
means further comprises, when determining salient terms in the at least one text
transcript:

a step to determine high selectivity terms in the at least one text transcript;

and

20 a step to select terms from the high selectivity terms that are above a
predetermined selectivity.

30. The article of manufacture of claim 29, wherein computer-readable code
means further comprises, when determining salient terms in the at least one text
25 transcript:

a step to remove terms whose category is uncertain from the high

selectivity terms.

31. The article of manufacture of claim 29, wherein computer-readable code i
means further comprises, when determining high selectivity terms, a step to determine
5 selectivity of terms in the at least one text transcript and a step to determine terms having
a predetermined selectivity, and wherein computer-readable code means further
comprises, when selecting terms, a step to select terms having the predetermined
selectivity that are above a predetermined threshold.

10 32. The article of manufacture of claim 28, wherein computer-readable code
means further comprises, when displaying text:

a step to determine a position of a cursor when a click occurs;

a step to determine if the position is within a predetermined distance from
one of a plurality of salient terms that are being displayed; and

15 when the position is within the predetermined distance from one of the
salient terms, the following steps:

a step to determine which of the salient terms is near the
position;

a step to determine a time of the salient term; and

20 a step to play the speech document, beginning at the time.